

(FILE 'HOME' ENTERED AT 16:52:32 ON 04 APR 2003)

FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, MEDICONF' ENTERED
AT 16:52:47 ON 04 APR 2003

L1 239 S (I-SCE? OR I-CSM? OR I-PAN? OR I-CEU? OR I-PPO? OR I-CRE? OR
L2 118 DUP REM L1 (121 DUPLICATES REMOVED)
L3 9 S L2 AND CULTUR?
L4 9 SORT L3 PY
L5 47 S (I-SCE? OR I-CSM? OR I-PAN? OR I-CEU? OR I-PPO? OR I-CRE? OR
L6 22 DUP REM L5 (25 DUPLICATES REMOVED)
L7 22 SORT L6 PY

=> d an ti so au ab pi 17 12 21 9 16

L7 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS

AN 1998:545391 CAPLUS

DN 129:172448

TI Cloning and expression of gene for restriction endonuclease I-SceI of
Saccharomyces cerevisiae and use of I-SceI

SO U.S., 79 pp., Cont.-in-part of U. S. 5,474,896.

CODEN: USXXAM

IN Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-francois

AB A mitochondrial gene encoding restriction endonuclease I-
SceI of Saccharomyces cerevisiae and a synthetic universal code
encoding **I-SceI** for the expression in Escherichia coli
and yeast are provided. Applications of **I-SceI** for
genetically mapping yeast chromosomes by the nested chromosomal
fragmentation strategy, inducing double stranded DNA break, and in vivo
site-directed insertion of genes and homologous recombination in
eukaryotes are also described. It may also be used for prep.
transgenic animal models of human diseases and genetic disorders.

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

PI	US 5792632	A	19980811	US 1994-336241	19941107
	US 5474896	A	19951212	US 1992-971160	19921105
	US 5866361	A	19990202	US 1995-465273	19950605
	CA 2203569	AA	19960517	CA 1995-2203569	19951106
	WO 9614408	A2	19960517	WO 1995-EP4351	19951106
	WO 9614408	A3	19960829		
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP	791058	A1	19970827	EP 1995-938418	19951106
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 10508478	T2	19980825	JP 1995-515058	19951106
	US 6395959	B1	20020528	US 1996-643732	19960506
	US 5948678	A	19990907	US 1998-119024	19980720

L7 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2003 ACS

AN 2002:403935 CAPLUS

DN 136:396983

TI Nucleotide sequence encoding yeast restriction endonuclease I-SceI and
uses in genetic mapping and site-directed gene recombination

SO U.S., 84 pp., Cont.-in-part of U.S. 5,792,632.

CODEN: USXXAM

IN Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-Francois

AB The present invention relates to an isolated yeast DNA encoding the
restriction endonuclease **I-SceI**, and use of **I**
-SceI for mapping eukaryotic genomes and for in vivo site
directed genetic recombination. Specifically, the invention relates to a
vector comprising a plasmid, bacteriophage, or cosmid vector contg. the
DNA sequence of the enzyme **I-SceI**. The invention also
relates to E. coli, eukaryotic cells transformed with a vector of the
invention, **transgenic** animal with the DNA sequence encoding
I-SceI. The invention relates to a **transgenic**
organism in which at least one restriction site for the enzyme **I**
-SceI has been inserted in a chromosome of the organism. The
invention further relates to methods for gene mapping in yeast chromosome,
yeast artificial chromosome, and cosmids, and site-directed insertion of
genes.

L Number	Hits	Search Text	DB	Time stamp
1	543	(group ADJ I ADJ Intron)or (intron ADJ encoded)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:12
8	178	((group ADJ I ADJ Intron)or (intron ADJ encoded)) and transgenic	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:12
15	450	I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:18
22	55	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and transgenic	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:14
29	9	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and transgenic.clm.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:14
36	9	DUJON NEAR BERNARD	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:17
43	39	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) WITH cell	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:28
57	44	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) WITH (eukaryotic mammalian cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:48
64	15	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) WITH mouse	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:48

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6395959	B1	20020528	US 1996-643732	19960506
	US 5474896	A	19951212	US 1992-971160	19921105
	US 5792632	A	19980811	US 1994-336241	19941107

L7 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS
AN 1996:428575 CAPLUS
DN 125:107019
TI Nucleotide sequence encoding yeast enzyme I-SceI and its use in inducing homologous recombination in eukaryotic cells and protein production in **transgenic** animals
SO PCT Int. Appl., 122 pp.
CODEN: PIXXD2
IN Choulika, Andre; Perrin, Arnaud; Dujon, Bernard; Nicolas, Jean-Francois
AB Synthetic DNA encoding the enzyme I-SceI is provided. The DNA sequence can be incorporated in cloning and expression vectors, transformed cell lines and **transgenic** animals. The vectors are useful in gene mapping and site-directed insertion of genes. A synthetic gene encoding *Saccharomyces cerevisiae* I-SceI restriction endonuclease was expressed in *Escherichia coli* and yeast. The enzyme was used in genetic mapping of a yeast chromosome, of YAC's, and of cosmids. I-SceI efficiently induced double-stranded breaks in a chromosomal target in mammalian cells and the breaks were repaired using a donor mol. that shares homol. with the regions flanking the break.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9614408	A2	19960517	WO 1995-EP4351	19951106
	WO 9614408	A3	19960829		
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5792632	A	19980811	US 1994-336241	19941107
	EP 791058	A1	19970827	EP 1995-938418	19951106
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 10508478	T2	19980825	JP 1995-515058	19951106

L7 ANSWER 16 OF 22 MEDLINE
AN 2002491377 IN-PROCESS
TI I-SceI meganuclease mediates highly efficient transgenesis in fish.
SO MECHANISMS OF DEVELOPMENT, (2002 Oct) 118 (1-2) 91-8.
Journal code: 9101218. ISSN: 0925-4773.
AU Thermes Violette; Grabher Clemens; Ristatore Filomena; Bourrat Franck; Choulika Andre; Wittbrodt Jochen; Joly Jean-Stephane
AB The widespread use of fish as model systems is still limited by the mosaic distribution of cells transiently expressing transgenes leading to a low frequency of **transgenic** fish. Here we present a strategy that overcomes this problem. Transgenes of interest were flanked by two I-SceI meganuclease recognition sites, and co-injected together with the I-SceI meganuclease enzyme into medaka embryos (*Oryzias latipes*) at the one-cell stage. First, the promoter dependent expression was strongly enhanced. Already in F0, 76% of the embryos exhibited uniform promoter dependent expression compared to 26% when injections were performed without meganuclease. Second, the transgenesis frequency was raised to 30.5%. Even more striking was the increase in the germline transmission rate. Whereas in standard protocols it does not exceed a few percent, the number of **transgenic** F1 offspring of an identified founder fish reached the optimum of 50% in most lines resulting from meganuclease co-injection. Southern blot analysis showed that the individual integration loci contain only one or few copies of the transgene in tandem. At a lower rate this method also leads to enhancer trapping effects, novel patterns that are likely due to the integration of the transgene in the vicinity of enhancer elements. Meganuclease co-injection thus provides a simple and highly efficient tool to improve transgenesis by microinjection.

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1	543	(group ADJ I ADJ Intron)or (intron ADJ encoded)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:12
8	178	((group ADJ I ADJ Intron)or (intron ADJ encoded)) and transgenic	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:12
15	450	I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:13
22	55	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and transgenic	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:14
29	9	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and transgenic.clm.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:14
36	9	DUJON NEAR BERNARD	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/04/04 16:17
-	11	((group ADJ I ADJ Intron)or (intron ADJ encoded)) and (chromosome\$2 NEAR mammal\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/04/22 13:53
-	17	((group ADJ I ADJ Intron)or (intron ADJ encoded)) and I-sceI\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/04/22 13:58
-	90	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and (eukaryo\$5 animal\$2 mammal\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:14
-	380	I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:27
-	49	(I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and (eukaryo\$5 animal\$2 mammal\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/28 14:48
-	48	(I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and (homo\$5 recomb\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:40
-	5	(I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2).clm.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:34
-	2	wo NEAR "9614408"	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:38

-	87	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) and (homo\$5 recomb\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/02/05 19:40
-	9	DUJON-BERNARD	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/11 13:34
-	44	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) NEAR site	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/11 13:35
-	35	((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) NEAR site) and chromosome	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/11 13:37
-	8	((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) NEAR site) and (mammal\$5 NEAR chromosome)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/11 13:40
-	0	((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) NEAR site) SAME (mammal\$5 NEAR chromosome)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/11 13:40
-	6	(I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) SAME (eukaryo\$5 animal\$2 mammal\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2003/03/28 14:48